

THEREFORE WHAT IS CLAIMED IS:

1. A tiled optical display, comprising:
 - at least one display module 10 including
 - i) a liquid crystal display modulator 20 and an array of light emitting diodes 12, 14, 16 positioned to backlight the liquid crystal display modulator 20, the array of light emitting diodes including at least one each of red, green and blue wavelength emitting light emitting diodes with a beam of light 18 from each light emitting diode being focussed onto a pre-selected region of the liquid crystal display 20 spaced from the light emitted by the other light emitting diodes, each pre-selected region of the liquid crystal display modulator 20 including an array of optical modulation elements 30 such that light from each beam of light 18 passes through one set of corresponding optical modulation elements 30, control means connected to each individual modulation element of each set of optical modulation elements 30 for controlling a desired amount of light from each beam 18 to pass through each individual optical modulation element of the liquid crystal modulator; and
 - ii) a planar view plane 40 having a pre-selected number of pixels 42, each individual optical modulation element 30 having a first end of an optical light guide 34 optically coupled thereto, and a second end of one optical light guide 34 from each pre-selected region 24, 26, 28 of the liquid crystal display modulator 20 being optically coupled to one of the pre-selected number of pixels 42 so each pixel is optically coupled to a red, green and blue light emitting diode 12, 14, 16 mediated by the liquid crystal display modulator 20.
2. The tiled optical display according to claim 1 wherein said optical light guides are optical fibers.

3. The tiled optical display according to claim 1 or 2 wherein the at least one display module 10 is a plurality of display modules, the planar view plane 40 of each display module 10 being tiled together with a planar view plane of at least one other display module.
4. The tiled optical display according to claim 1, 2 or 3 wherein each pre-selected region 24, 26, 28 of the liquid crystal display modulator 20 having a beam of light 18 from a light emitting diode 12, 14, 16 focussed thereon includes a pre-selected number of optical fibers having their first ends optically coupled thereto, the first ends of the plurality of optical fibers being arranged symmetrically with respect to the beam of light focussed onto the pre-selected region of the liquid crystal display so that light transmitted by each optical fiber has substantially the same intensity, and wherein the second end of a given optical fiber of the pre-selected number of optical fibers is optically coupled to a different pixel than to which the second ends of the rest of the pre-selected number of optical fibers are optically coupled.
5. The tiled optical display according to claim 1, 2, 3 or 4 wherein each light emitting diode 12, 14, 16 is positioned close enough to the liquid crystal display modulator 20 so that the light beams 18 from each light emitting diode does not interfere with the light beams 18 from any other light emitting diode on the pre-selected areas 24, 26, 28 of the liquid crystal display modulator 20.